



FIGURE 15a

T G N T M M M C A C G A K M G W S A K N C C C A K G G T K G K V A A V G T G A C A R A G C T T G M N A A A A R A N G A R A G T A T G A C C W G T G G C C R A G A T A G M K A M D A G C N G M 100  
 ? ? ? ? ? R ? ? ? P ? V ? ? ? D ? A ? ? K ? K Y D ? W A ? I ? ? K ?  
 ? ? ? H ? ? ? R ? ? ? V T ? L ? K ? ? S M T ? G P R . ? ? S ?  
 V ? ? ? T ? ? ? G ? ? ? Q S ? ? K ? E V . P V G ? D ? ? ? A ?  
 S A G K T R A M G G C A T G G N C U C T A A V G A B W G C N A A H T B C G C N W D C A R N G T C C A A T K S A N E T C S C A G G A A C C H C G G A M T G G C T C C A R C C C D T A G G 200  
 ? ? ? G R W ? ? Q ? ? G ? ? G ? O ? P N ? ? ? R N ? R ? G S Q P ? G  
 ? ? ? D D G P A ? R ? ? ? ? A ? ? V Q ? ? ? ? ? G T ? G ? A R ? P .  
 ? . R T M ? ? P ? ? ? ? R ? ? ? S K ? ? S Q E P T ? W L A ? ? R  
 G A T C A G G K A C C A T G R C T C S C C R N S K A C T C S G N K T G P T W A T C G M N W C T M G G J A G C G G M G G A A T T R W A A G T A N T G G T M G A M A K A T G W G V M G G A W A T G A 300  
 I R ? D ? S P ? ? S ? . ? I ? ? R ? A ? E L ? S ? G R ? M ? R ? .  
 G S G T M ? ? R ? T ? ? D ? S ? V G R R R N ? K V ? V ? ? ? G ? D  
 D Q ? R ? L ? ? ? L ? ? I N R ? ? ? G G G I ? K ? W ? ? ? ? ? ? ? M  
 T R G T M G A T C T I M V M G G V A K T A K S G G T A C A G G C G A A K A C A R G R A K G T G T C T G A G G A A D I T C A G N A G C A A M M T C C C G A A G T C M G G A C T T A G K A T R G A T 400  
 ? V D ? ? G ? ? ? Y R R ? Q ? ? V . G ? Q ? D ? ? A E V R T . ? ?  
 ? ? T ? ? ? ? ? G T G E ? ? ? V S E E ? ? R T ? L P K S G L ? ? D  
 ? ? R L ? R ? ? ? V Q A ? T ? ? C L R ? S ? G Q ? C R S ? D L ? ? I  
 A C G A A N C T R G A T C T I M A D G G G G N K A C C G A C T G C S T A A C G V A R A T R G G N S W G T C T A C T I M A C N C C A G N G D G G A C T T A G A S G A G G A G A G T I A 500  
 Y E ? ? I L ? G G ? R V ? K R ? ? ? L L ? ? Q ? ? T F T R ? G E .  
 T ? ? ? S ? ? G ? S E C ? N ? ? ? V Y ? N ? K ? G H L L ? E E S  
 R ? ? D L ? ? ? G ? A S A . T ? ? G ? S T ? T P ? ? D I Y . ? R R V  
 C C A G A T C A C T G A G A T G A T C T A A K G G G G T C C C G T T G C A G G A T A T G A C A G G A C T G G T C C G A C A T W G T G C T C T T G C T G A C T C A C T T A T G T T 600  
 P D H ? R . S ? V G S R C Q Y M R G L V R Q T ? M I F A D S H I V  
 S Q I T . D D L ? W G P V A S I . E D W F G R B ? C S L L T H I L L  
 A R S ? E M I . ? G V P L P V Y E R T G S A D I D A L C . L T Y C  
 G C V T G A S K A T G A T C A G A T G C T G C T G C T C A T G A T A T G R G C G T G A T G T A A T G A G T T C C T T G C T G A C T C A C T T A T G T T 700  
 A ? ? M I R Y D L ? S L I M N ? ? R D A N E I R L . W N K R L ? L .  
 P . ? . S D T I ? C P S S . ? ? A V M L M R F A Y D G T R D ? C Y  
 C ? E ? D Q I R S ? V P B H E ? ? P . C . . D S P M M E Q E T ? A T  
 A C C A G G C G A A T G A G G T T C T A G A T G A C T G C T C A C C A G G A A C T G T G G A C C T G G A G G A C C A G G A A C T W G C C A C A A C T G G C T T 800  
 Q Q A N E G F . S R S L R R R E T V D L E D Q G L Q E E V A T T G L  
 S R R M K V S R V G V S G G E K L W T W R T R D S R R K ? P Q L A  
 A G E . R F L E . E S Q E E R N C G P G G P G T P G G S ? H N W L  
 G A S T T G G C T C C G A T C C T G A T C G G C T G C T G C T T G G C T C A G A A T G C G T G G A C C T T T C A T C O C C C A T G C G A 900  
 C A A A T G A C G C G C T G T G G C G T G G G C T G T G G C C T G A T C C T C C A T T C T G C T A T T C T C A C C C T A T C T G T C C C T G G N T A C G A 1000  
 Q T R R L A L W P W D C G A V W P H I L H S V Y S H P N L S L ? T  
 K L G V W R C G P G I V G L C G L I S S I L S I L T L I C P W ? R  
 T N . A S G V V A L G L W G C V A S Y P P F C L F S P . S V P G Y D  
 C T C R A G C C C Y G A C T G A C B M T G T G G T A C A A G T A A G G A G G G A S C C C A G G T G G G G T G A G T G G A C T G A T G G G C T G C T A A G G C A G G C T C C T G C A 1100  
 T Q A ? T D ? V V Q D K E G A Q V G E M E A E M V H C V P T S L . F  
 L K P ? L T ? W Y K I R R E P R W V R W K L R W ? T V C ? P H C N  
 S S P D . ? C G T R . G G S P G G . D G S . D G ? L C A ? L I V I  
 C R A C T G C C T G A C T G A G G T H A A T C C A G A T C C Y T A G G G A T G A G G G G R A G A C C T G C C A A A C A C G G G T C A G G A A G G C A G G C T C C T G C A 1200  
 N ? L D . S . N P D P . G . G E E P A K D G S G R Q C . G K A P A  
 S T ? L T E V K I Q I ? R D E G K N L P K T G Q E G S A K G R L L Q  
 O L P . L K L K S R S L G M R G R T C Q R R V R K A V L R E G S C

FIGURE 15b

GGCTCTGCAGTTGGACTTCATTAGTCCCATTGCCAGAAATCATAGCTCTTCCYYTATCTCTGTCTTGAGTCTAGTTAAGAATTGTTACCGGAG 1300  
G L C S W T S F S P I A R I S . L F P L S L C L E S S . E F V T G  
A S A V G L H S V P L P E S H S S ? Y L S V L S L V K N L L P E  
R P L Q L D F I Q S H C Q N L I A L P ? I S L S . V . L R I C Y R R  
ACAGAATTCCTCTTCATAGCTCTGGCACATAATTAAAGGAGGGGGGGGTTACTTTGGTAGGGAACTTAAAGTTATGGATACCAAACTGCTA 1400  
  
D R I L F L S L L A R Y L K G G G W V T F W . G K L K L W I A K C .  
T E F S F L A S W P D I . K E G G G L L F G R G S L S Y G . Q S A  
Q N S L S . P P G Q I F K R R G V G Y F I L V G E A . V M D S K V L  
ATTGTTATCTTTTTCTGAACCTCTGTAGCATTTCCTCCACCCCTCCATACCTTCCAGGCTTCACTTCATGCCGGGTCTCTCGCTCA 1500  
  
L Y S F F L K P H V A F F F P S T L H T F P G F I S C P A S L R S  
N C I L F F . N L M . H F S S L P P S I L S Q A S F H A R R L F A H  
I V F F F S E T S C S I C P R F H P P Y F P R L H F M P G V S S L  
CACCGUTGCAGGTGTTGAGCTTCTCCCTGGCTGCTCACAGACTGCTCCACACTTCCAGTTCTCGTACACGTGATATTAGAGTTCT 1600  
  
H R C R L F E A S P L G L P Q Q T A S T L S S F C V H V D I R V S  
T A A G C L R L L P W V C L S R L P P H F P V S A Y T L I L E F P  
T P L Q A V . G F S P G S A S A D C L H T F Q F L R T R . Y . S F L  
TCCCCACTGGCTCTGGCTCTGACTACCCAGGCTGATGCCATGCTGGCTCTGTAATAACTGACATGATGTAATAACTGGT 1700  
  
F P T W L L L F L . L P R L M P C L A S S C K Y C T M I L C K . L V  
S P L G S C S F S D Y P G . C H V W P L P V N T V Q . F Y V N N W  
P H L A L A L S L T T Q A D A M S G L F L . I L Y N D S M . I T G  
CCTTCCACACAGAACCAACGCTCTAGCTAACAAATAAGCTAACAGTTGACTGCTTAACTGACATGATGGGGGGGGTGGGGTG 1800  
  
L A H R A S K P S R L T N . R S S L L T D F F I Q F K M A G G G V  
S L P T E Q A S L L G . Q I K D Q V C S L T F L F N S R W R G V G W  
P C P Q S K Q A F . A N K L K I K F A H . L F Y S I Q D G G G W G  
GGGGGGGGATGCTGTTCACTGTGGTACCTAGCCAGGGCTGAGCTGCTTCTGAGCTACGCTACGCTGAGTGTACTG 1900  
  
G G R I A C F B C G T . A G L K L . A P L L . A S E . P T V S V T  
G G G L P V F T V V P R Q G . S S E L P C F R L L S S L Q . V L L  
G G A D C L F S L W Y L G R A E A L S S P A L G F . V A Y S E C Y C  
TGTCCAGCTGGTACATGGCTCTGACTGCTGGCTCTGTAAGGCTTACGCTCTGACTGTGGATGCCCTTCTGGCTTACAGCTAACAT 2000  
  
V S S C S L T S G L S W S G H C K P . L S D C G W I S L A L A R N M  
C P A A R . H L V S H G L V I V S L S S L T V D G F P W R . Q L T  
V Q L L V D I W S I M V W S L . A L A L . L W M A F L G V S S . H  
GGTACAGGTTTCACTGAAATTAAATGTTGGGGAAAGGTGGCACACCCATAATGGCTCAAACATCGTGAACAGCTAACATGAGTTAG 2100  
  
V T G F H J K F K C W G K G A D T P . W S Q F K T I R E T A S S .  
W L Q D F T E N L N V G G K V R T H H N G P N S K Q S V K Q P Q V R  
G Y R I S L K I . M L G E R C G H T I M V P I Q N N P . N S L K L  
GGTGGAGATGTTTCAACCAAGTAAATTTGACACCCAAACGCAACCTGCTACAGGCTGACTCCCAAAGCTATTAGCACACAACAT 2200  
  
G . D V F N Q S N Y L D T T K H T C L Q A V T P Q K L L D T Q Q A  
G E M F S T K V I I L T P Q S T P V Y R Q . L P K S Y . T H N K H  
G V R C F Q P K . L S . H H K A H L S T G S D S P K A I R H T T S M  
GACCATAACTCACTGGATGGCAAGGTACACACAGTAGGACTGCCCTCACACAGTAGGAAATGCTGCTGACTGCTGAGCTGTATTGCA 2300  
  
. P . L S G L A R S H S R T A L H T V G R K M L L S L L S A V I L H  
D H N S V D W Q G H T V G L P F T Q . V G K C C C H C C Q O L L F C  
T I T Q W I G K V T Q . D C P S H S R . E N A A V T A V S C Y F A  
TATCCATGTTAAAGTTAAAGGCAAAATAATTGCTCTAAGTCTACTTCTGTTCCAATGGAGGAAATTATGAAATAAAACCGTGCTRAA 2400  
  
I P C . D . . G K K Y C L . V L L S V P N W R K L L N K . T V H K  
I S H V K I N K A K N I V S K S Y F L F Q T G G N Y . I N K P C I K  
Y P M L R L I R Q K I L S L S P T F C S K L E E I I E . I N R A .

FIGURE 15c

AGTAGCCTCAGAAAGGTCAAAATTGTCTTCTTGAATATTAGCTGAGGCCTCCAGGGGGCAGCACCAAGGTAGAGCTGGACTAAGGCTGCTCTG 2500  
S S L R K G Q N L C F L . I L A E A S R G Q H Q G R E L D . G C S  
V A S E R V E I C V F F E Y . L R P P G G S T K V E S W T K A A L  
K . P Q K G S K F V F S L N I S . G L O G A A P R . R A G I R L L C  
TGTTCCTGCTGGCTCCACACGCTCCCTCCACCACTCCATCCATCCAACTTTATTTAGCTGCCAGTGGAGGGGGCAGGTAGGGAGGA 2600  
V F L S W A P H S S L P P P L P F H P T L F L A A S G R G Q D R R E  
C S C P G L P T A P P F H H H S H S I Q L Y F . L P V G G G R I G G  
V P V L G S P Q L P S T T T P I P S N F I F S C Q W E G A G . E G  
AAGTAACGAAACACGCCAACGAGACGGCACAGACAACTCAGAGCCTCTGGACTGGACCGAACAGCCCCATGGGTCTCTCCATCCCTCACCTGCT 2700  
S N E N S Q G E G Q S N S E P L G L D R T S A H G V S L H P S P A  
K V T K T A K E R D R A T Q S L S D W T G Q A P M E S I S I P H L L  
K . R K Q P R R R G T E Q L R A S R T G P D K R P W S L S P S L T C  
CTGCTCCCTGGCTTGCTGAGCTGAGGAGAACTTCTGCTGCTGGAAATGGATGGATGTTATAATTGGGACCATATGGCTAA 2800  
P A P G V A D R . G K Q T W F L L G M E V M W I V Y N W D H Y G .  
L P L A ? I T G E G S K L G F C W E W K L C G I F I I G T I M A K  
S C P W R ? . Q V R E A N L V S A G N G S Y V D C I . L G P L W L K  
ATCTYGGGGGGCTAGGTCGGAGGTAAACCGATGCTATTTCTGCTGCACTCATGTTAGACACCCAAATGGCAAGTGGCAAAACTTCTCT 2900  
N L A G A Q V G G . Y R C Y I S C V H S C S . T P K W Q W P K L P L  
I ? R A L R S E V N T D A I F P V C T H V I R H P N G S G Q N F L  
S ? G R S G R R L I P M L Y F I C A L M F L D T Q M A V A K T S S  
GGCTTGACCTTCAATTCTAAACCTTGTACTTAATTCTAAACCTTGGCTCTAAACTCCACACATGAGGACACAGAAAGAGAGCTGCTCTCAT 3000  
A C T S L S K P L Y L I I . N L G P K L H R H E G T E K R R V S H  
W L V P H Y L N L C T . L S K T L V L N S T D M R A O K R D V S L I  
G L Y L I I . T F V P N Y L K P W S . T P Q T . G H R K E T C L S  
CTTCCATTGGTAACTGATCTACCTTCCCTGGCTCTCCCTGCCATTGGTCTCTGGTGGCTGAGGCTATAATTGCTTACTATGTTGAGCTA 3100  
L P F G Y T D S Y L P C F S L P L V L L G A . G I I A L L C G Q N  
F H S V T L I P T F P A S P C H W C S L V P E A . L P Y Y V V R T  
S S I R L H . F L P S L L L P A I G A P W C L R H N C L T M W S E L  
CTGGGTGGCTAACGACGAGCTACAGTTCTGGTCTCATAGCCCTGCCATTGGTCTCTGGTGGCTGAGGCTATAATTGCTTACTATGTTGAGCTA 3200  
S G F A . R P S Y S F W S H S P A N F L D . K K K A H I . N T F S E  
L G S P N D R A T V S G L I I A L P I S W I K K R L T Y K I P F L  
W V R L T T L Q F L V S . P C Q F P G L K K K G S - H - I - K - Y - L F .  
AAATGAGCACACTGAGTGAATTAGTTGGGGCTGGAGGGTCTGGCTGCAAGACAGTACAGAAAGAGATCTGGAGGGATAAG 3300  
N E H S V S . S . I L G D G G L L G C K E Q D S R E E N H G R D K  
K M S T V . V E V R F W G M E G . C L D A K S K T V E K R I M G G I R  
K . A Q C E L K L D F G G W R V A W M Q R A R Q . R R E S W E G .  
AGGCTGGATTTCCTGCTAGTGGCTATATCTTGTCTAAACCTCTGATTTATGGGAAATGGGTGAGGAGAAGGAATCTAGG 3400  
R L E F F P A S A L . S L F P K I T A L I L W E L G S G E R N Q .  
G W N F S L D L V P Y N L C F L K . Q L . F Y G N W G Q E K G I S R  
E A G I F P C . C P I I F V S . N N S S D F M G I G V R R K E S V G  
CACAGATGGGACCCCTAACGCTGGGCTAACAGGCTAGTGGCAAGGGCTGTTGTAGGCTGGATGAGATGAGGAGATTGGTGGGGGG 3500  
A Q M G P Q A W T K V . G N Y G S R Q G V F V R W M R . G D C G G G  
H R W D P K R G L K F E E T M G V G K G . C L . G G . D E E I V V G  
T D G T P S V D . S L R K L W E . A R G V C K V D E M R R L W W G  
GGAGCTTGGGGCTAGAGGACCCCTAACAGGCTAGTGGCAAGGGCTGTTGTAGGCTGGATGAGATGAGGAGATTGGTGGGGGG 3600  
E S W G . . D P . Q G . M A N C V W A G R W F H P L N . R . G W Q  
G S L G G D R T L N R D R W Q T V C G Q A G G G S T H L I S V E V G R  
G V L G V I G P L T G I D G K L C V G R P V V P P T . L A L R I A

FIGURE 15d

GCCTGGAGGAGCCAGACTCTAACCTTGGAGAAAGTGAAAGTGACAAAGAAGAACAGAAAGAGGAGCACCTCGGCAGGGAGTCCTTG-CATCGT 2700  
G W K E P A L S T L E K V Q V . Q E E T E R G D T R A G S S L P S  
A G R S Q H S Q P W R K C K C D K K K Q K E E T P G Q G A P C H R  
G L E G A S T L N L G E S A S V T R R N R K R R H P G R E L L A I V  
TCTCTCCATGCCCTGGCTGGAGAATTAGGAAGGGTGGTACTCTGATCTCAGAAAAGCCCTCTCTCCCTCTTGGACTCTGAGGCTTACA 3800  
F L P M A L A L G R I R K G W . L C I L R K A L S P S L D S R G L E  
F F P W P W L W E E L G K G G D S A S S E K P S L P L W T L E A .  
S S H G P G F G K N . E R V V T L H P Q K S P L S L F G L S R L R  
GAGGAGATGTGAGGAGGATGAGGAAAGACTTACCTGACCTATCCAGATGTGCTGAGATGAGATTCAGGATGAGATGGAATAACGTGT 3900  
R R M C R R N D V E R V T . P I O M C L . M R F Q E . E W K Y S C  
R G E C V G G M M W K E . L D L S R C V C E . D F R N E N G N T A V  
E E N V . E E . C G K S N L T Y P D V S V N E I S G M R M E I Q L  
GTTCACTGGCCAGGGCTTAGGTCCCTACCCCCACAGGAAGAGATCATCCATCCCACCTGGGTCTGAGGACATGACATTGAC 4000  
A S A W P R A L G S L T P T P Q E E N H P I I P P G V L R T . H .  
L Q H G R G P . D P S P P P H R K R I T I Q S S H L G F . G H D I D  
C F S M A E G L R I P H P H P T G R E S S N H P T W G S E D M T L T  
ACAGAGCAGGAGACTGAGATGAAACACTCCCTCTGTCTGTCTCCACTAACCTGACCTGCTTCAACTGTTGATGCTTAATTATGAT 4100  
H R A G E L R . K H S I L S C L P L S L T S P S I T D W W M L I M I  
T E Q E S . D R N T P S C L V S H . A S P V I L E . L I G G C . L .  
Q S R R A E I E T I P P V L S P T K P H Q S F I N . L V D A N Y D  
CCTACCCCTCAGGTCTCTGCTCCCTTAATCTGGATGACACCCACCCGACTCTCACAGGGCCACCAAGGGAGATTCAGTACAGTGTCTTAC 4200  
L T P Q V S A P P L I W M N T T H D S S Q G H Q R P N L D T V S Y  
S S P L R S L L P L . S G . T P P T T L H R A T R G R I W I Q C L T  
P H P S G L C S P F N L D E H H P R L F T G P P E A E F G Y S V L  
ACATGTTGGGCTGGACACCTGGTGGAGACGGAAACAGAGGACCTGGGACTATGCACTCACTGATAAGGGAGGACGGTCAAGCTGG 4300  
S M L G V D S D G E R E N R G P W D R D Y A L T D K G E D R S K L  
A C W G W T A M V R G K T E D R G I G T M H S L I K G R T G P S W  
Q H V G G G Q R W . E G K Q R T V G S G L C T H . R G G P V Q A G  
CCTTGAAGTCCTGGCTCATGAGCTCATGACTCTCCCTCTCACTACTAACCTAGGACCATGTCACGGGATCTTATACATTAATCTCC 4400  
A F E S A W G S M T S H A L S L S L Y . G P C S P D L Y I H I L L P  
P L K V P G A P . R L M H S P S H Y T K D H A H R I F I S I F S F  
L . K C L G L H D V S C T L P L T I L R T M I L T G S L Y P Y S P S  
AGGATGCTGGGCTGGCTCATGAGCTCATGACTCTCCCTCTCACTACTAACCTAGGACCATGTCACGGGATCTTATACATTAATCTCC 4500  
G C W W V P P P G M G H Q V T G E G M F I V A L . G D S T V L H . V P  
Q D A G G C P L G W A I R . P E R G C L S I L L Y R G I P Q C S M Y Q  
R M L V G A P W D G P S G D R R G D V Y R C S I G G F H S A P C T  
AAGGCCACCTGGGTAAGAGAACCTGACCTTCTCCCTCTGATGACATCTAGAATCTGACCTGACCTGGGATCTTCAAGGGGATCCACAGTGTCCATGTACCA 4600  
K A T W V R R S L T F P L L I P D V D I . . L . P L G P C L Q . . P  
R P P G . B E A . P F P C . F L M L T S S N S D P L D L V F N D P  
K G H L G K E K P D L S P B N S . C . H L V T L T P W T L S S M T L  
GACTAAAGAACCCGACTATGACCCCATGACTCTCTCTACCTCTCCACCCAGGTGACTATCAACTTGGAAATTCTCTCAGCTGCTGCTG 4700  
. T K E A E L . P H D F I L F Y P S S N Q V T I N L E I P L S L L .  
E L K K P N Y D P M T S F S S T L P P T R . L S T W K F L S A C C  
N . R S B T M T P . L H S L L P F L Q P G D Y Q I G N S S Q P A V  
AATATGACCTAGGGATGCTCTACTAGAGACAGATGCTGTGGGGATTCATGGTGAAGAGAGGGCTCAGAAGGTACACAGGGAGAGAG 4800  
I C T . G C L Y . R Q M L M G D S W . A E R R A S E G S Q Q G R E  
E Y A P R D V S T R D R C . W G I H G E L K E G P Q K V H S R E E S  
N M H L G M S L L E T D A D G G F M V S . K K G L R R F T A G K R

FIGURE 15e

FIGURE 15f

TGCTGACTACACCCACATCCATGTTTGTGTTCCATCACTATGCCCTCTAGGCTGCCCCACATACTGGATGTCGTATTGTTGGAT 6100  
C . L H P T S F H V F C F P S L C P P S R L S H I H G C R H C F G  
A D Y T P H P S M F F V S H H Y A P L L G C P T Y M D V V I V L D  
L L T T P H I L P C F L F P I T M P P F . A V P H T W M S S L F W M  
GGCTCCAACAGTATCTATCCCTGGTAGAAGTTAGACTTCTGGAGGCCTGGTAGGAAGACTGTCACTGGAGCAGATACTGGAAAGAAA 6200  
W L Q Q Y L S L V R S S D F P S E A G R K T V H R S G A D T G K R K  
G S N S I Y P W S E V Q T F L R R L V G R L F I D P E Q I Q V R E  
A P T V S I P G Q K F R L S F G G W . E D C S S I R S R Y R . E K  
GATATGGGATAGGATGGAGGGAAAGAAGTAAACACTCTGGACCCCTGGATGTAACACATGTCACCGCTCTGACACCCCTGGGACATTGTCT 6300  
I C G . D W R E R S K H S W T L G C K Q P C P A S . . H P G T L S  
R Y V D R I G G K E V N T P G P L D V S S H V Q P L D D T L G H C L  
D M W I G L E G K K . T L L D P W M . A A M S S L I M T P W D I V  
TCTACAGAACATGTCAGAACACTGTGCRATTAACCTACAAAAAAAGTCACAAAAAAATTCAATAGTTGAAGTAAAGTTATGATTGTGTGGGGGGCAC 6400  
S T E L M L K N C A I N L P K S H K N F I M F E V S L . I C G G P  
L Q N S C S R T V Q L T Y Q K V T K I S . C L K . V Y D C V G G H  
F Y R T H A Q E L C N . L T K K S Q X F H N V . S K F M I V W G A T  
ACTCAGAGCTTCCCTTGCTCTGGTAGITGGCTGGCATGAGCTGCAAGTTAGACACACCTGTCACCTCCCTCATGTCCTGAGG 6500  
H S E L P F A A C S C L G N A C H E L Q V R H T C S L P L H R A A G  
T Q S F P L L L V V A W A M H A M S C K L D T P V H F P F I V L Q  
L R A S L C L . D L G Q C M P . A A S . T H L F T S P S S C C R  
TTGGACACACTGTTAGGGGTCACTTCCCTCATCTTGCTCCATCTCTACGCTCTCATACATCCATGTCAGGCTACATGGCTTAITGTCT 6600  
W T H I L L G V H F F I L C A P S S L R S S Y I P C G H M V Y C S  
V G H T C . G F T S P S S F V L H L L Y A L H T S H V G T W S I V L  
L D T P V R G S L P L H P L C S I F S T L F I H P M W A H G L L F  
CAGCTAGGACTGTCACAGTACCGGGAGAACCCCTGTCATGAGCTGGCTGGAGACTTCGCAAAAGGAGAGTTGTCAGAGCACAGAACCTAA 6700  
Q V G L V Q Y G E N P V H E W S I L G D F R T K E E V V R A A R N L  
R . D W Y S T G R T L C M S G P W E T S E Q R K K L . E Q Q G T .  
S G R T G T V R G E P C A . V V P G R L P N K G R S C E S S K E P K  
GTCGGAGGGAGGGCCAGAACAGAACCCCTGTCATGAGCTGGCTGGCATGTCAGACATTGTAAGGGGTGTCAGGGAGGGAGGTCAAGCAG 6800  
S R R E G R E T R T A Q A I M V A W . D I V K G S C E G G G R I S R  
V G G K G E K R E P P K R S W W H G E T L . R G R V R E E E G S A  
S E G R A R N E N R P S D H G G M V R H C K G V V . G R R K D Q Q  
GGAGAGGGAGGGGTCTGGAGCTACTGTCATGAGCTGGCTGGCATGTCAGACATTGTAAGGGGTGTCAGGGAGGGAGGTCAAGCAG 6900  
E R E R V W S V V Y T S Q D A L G A Y L Y L H A R S S W R K A R L  
G R G R G S G V . C I H H K M L W A L I F I C M P E V R G G R L G C  
G E G G E G L E C S V Y I T R C S G R L S L S A C Q K F V E E G . V  
CTGTCACATACTCTCTACTGTCATGTCATGAGCTGGCTGGCATGTCAGACACAGAACACTCCATCTTC 7000  
L S P Y S L L L Y L H F M V S V G V S L L V C S V S A H R T P S F  
C H H T L S Y C I C I L W C L W V Y L S L S V L F L H T E L H L S  
A V T I L S L T V F A F Y G V C G C I S P C L F C F C T Q N S I F P  
TCTTCTACTCTGCTGTCATGTCACCTGTCACACTCACACCTAGTATCTTCAACATGACTCTAACCTCTGGGGAGGGTACATGA 7100  
L F Y S C V N S D T . L L N H S R P S I L F K H D S K P L G R L H D  
S S T P A S I L I P S F S T T H A L V F F S N M T L N L W G G Y M  
L L D L R Q F . Y L A S Q P L T P . Y S F Q T . L . T S G E A T .  
CCTGACTGTCATGTCACCTGTCACACTCACACCTAGTATCTTCAACATGACTCTAACCTCTGGGGAGGGTACATGA 7200  
L T V F I L Q F L D L V N P S V C . M N L . I N N A C T Y L H .  
T . L S L F S S S L I L S T Q V F A E . I Y K . I M L V H I Y T D D  
P D C L Y S P V P . S C Q P K C L L N E S I N K . C L Y I F T L M

FIGURE 15g

CAGATTATTTATATCTTCCGGGCCATCTAACAGTCAGGTGACTCTGTGCCAGTTGCATGCTAGTACTGTTGGGAAATGGTGTAGAAGACATCT 7300

Q I I L Y V P C H L N S Q V V T L C Q F A C . I L L G N G V E D I  
R L F Y M F R A I . T V K L . I L C A S L H A R Y C W G M V . K T S  
T D Y F I C S V P S K Q S S C D S V P V C M L D T V G E W C R R H L  
GACCTCACTGAACCTGGCAGCTGTTAAATACACTATAACGGGCATGCTGCTGACAGCCCTGTGTGTATGTCATGCAATGCAACACATACATATGACC 7400

. P Q . T A D S V N T L Y G H A C M Q A C V Y V H A Y A H T Y I . P  
D L S E L L T V L I H Y T G M P A C K P V C M C M H M H T H T Y D  
T S V N C . Q C . Y T I R A C L H A S L C V C A C I C T H I H M T  
ATTAAGCATCTTTATCTCTCTCTTAGCACAGAGGGTTCACTGAGTCAGTCCCCGGGGGGACGACAGAGGCCCTAGCTGCTGGTAGTTGTCACTGATG 7500

Y S I L L S L F L A Q K G S V S P G G D D O R P L G C W . L S L M  
H I A F F Y L S S . H R R V Q S V P G G T T R G R . A A G S C H . W  
I . H S F I S L L S T E G F S Q S R G G R P E A A R I L L V V V T D  
GAGACTCCCATGAGGAGGGACTCCAGCACGGCTTAAGGCTGTGAGGCTGCCAGACTTATGGGATGGGGTGAGACTTGATCAAGTC 7600

E S P M M E R N F Q Q R . R P V U R L A E . H V M G L R . D L I K S  
R V P . W R G T S S S A K G L . G W Q S D T L W D C G E T . S S P  
G E S H D G E E L P A A L K A C E A R V T R Y G I A V R L D Q V Q  
GTGTTTGTGTTGTGTTGTGTTGTGTTGTGTTGTGTTGTGTTGTGTTGTGTTGTGTTGTGTTGTGTTGTGTTGTGTTGTGTTGTGTTGTGTTGTG 7700

S C F V L C C I V C V C V C V C V C V C V C V C V Y V . Y V C M H Q C T  
V V L F C V V V S C V C V C V C V C V C V C V C M C D M C A C I S A  
L F C P V I Y R V C V C V C V C V C V C V C V C V I C V H A S V H  
ATACCATAGTGTATATCGGGTCAAGAGAACACCTCAGATGTTGGTCCCTCACCTTCCATCTGTTCCAATCTGATCTGTTGCACTTGGCATACA 7800

Y H S V Y M R V R E O P Q M L V L T F H L V P N W I S C S L R H T  
B T I V C I C G S E N N L R C W S S P S I L F Q T G Y L V H F G I Q  
I P . C V Y A G Q R T T S D V G P H L P S C S K L D I L F T S A Y  
ATAGCCAGAGTGGCTGACCCAAAGTCTGGGGAGGTCTCTGTCAGCCCTCTGCTCTGGTTGAGGCTTGTGAAATTTCAGATAACCTTGAT 7900

I S Q I S . P T S L G Q V F C L S L L S L G L R H S G I Y R . A .  
. A R L A D P Q V L G R S S V S A S C L L V . G I L E F T D K L D  
N K P D . L T H K S W A G L I L S Q P P V S W F B A F W N L Q I S L I  
ATCGAATTCTGCAAGCCCCGGGATCCACTAGTCTAGAGGGGGGCCACCAAGGGAG 7958

Y R I P A A R G I H . F . S G R H Q G S  
I E F L Q P G G S T S S R A A A T K G  
S N S C S P G D P L V L E R P P P R E